

## CLAIMS

What is claimed is:

1. In an Information Technology (IT) Infrastructure wherein internal end-users or external customers rely on business services to submit business transactions involving an orderly sequence of application transactions along a plurality of IT Paths forming IT Aggregates, a method for managing impact of IT events on business services which comprises the steps of:

- (a) configuring a high availability management backbone;
- (b) defining a plurality of business objects;
- (c) defining a plurality of IT objects;
- (d) monitoring the IT Paths used by the application transactions to form monitoring information;
- (e) monitoring the IT Aggregates to supplement the monitoring information;
- (f) automatically abstracting the monitoring information into business impact information; and
- (g) using the business impact information to manage the impact of IT events.

2. The method of Claim 1, wherein Step (d) further comprises the step of remotely submitting sample application transactions at selected source locations while requesting the backbone to capture execution information along the IT Paths of each application transaction.

3. The method of Claim 1, wherein Step (e) further comprises the step of collating and optionally controlling underlying monitoring threads in conjunction with distributed management policies.

4. The method of Claim 3, wherein at least one monitoring thread is an IT indicator.

5. The method of Claim 1, wherein Step (g) further comprises the steps of:

- 2 (i) translating an availability or a performance impact ascertained for the business  
3 transaction on a given location in a business impact statement for a plurality of  
4 dependent business user groups; and  
5 (ii) translating the availability or the performance impact ascertained for all the  
6 business transactions on all the possible locations in a business impact statement  
7 for the business service.

1 6. The method of Claim 1, wherein Step (g) further comprises the step of recording impact  
2 events with the purpose of providing off-line reporting capabilities.

1 7. The method of Claim 1, wherein Step (g) further comprises the step of running  
simulation sessions in parallel of a real-time session.

1 8. The method of Claim 1, wherein the backbone comprises a low-end processing layer  
referred to as an access layer, the method which further comprises the step of configuring the  
access layer.

1 9. The method of Claim 7, wherein the backbone comprises a plurality of production  
servers, the method which further comprises the steps of:

- 2 (i) installing a peer-to-peer service processor on each production server;  
3 (ii) configuring the processor with a pre-packaged set of event structures, data  
4 structures, control structures, actions, and rules, such that the service processor is capable  
5 of capturing external events, using embedded instrumentation functions, applying  
6 mapping methods, and enforcing distributed management policies;  
7 (iii) auto-discovering or declaring IT Components owned by the service processor;  
8 and  
9

(iv) referencing other IT Components in dependency relationships, wherein at least one first IT component is a master resource and at least one second IT Component is a dependent resource.

10. The method of Claim 1, wherein the backbone comprises an intermediate processing layer referred to as the abstraction layer, the method which further comprises configuring the abstraction layer.

11. The method of Claim 10, further comprising the steps of:

- (i) installing at least two peer-to-peer service processors, including a first processor and a second processor, the IT Infrastructure where a large number of service processors have been installed, where the first processor is a primary processor and the second processor is a backup processor;
- (ii) configuring at least one processor, referred to as a domain processor, with a pre-packaged set of event structures, data structures, and rules, such that the domain processor can deliver at least one abstraction service;
- (iii) installing at least one additional peer-to-peer service processor referred to as an ODS processor in the IT Infrastructure;
- (iv) configuring each ODS processor with a pre-packaged set of event structures, data structures, and rules, such that the ODS processor can deliver at least one object directory service.

12. The method of Claim 1, wherein the high end management backbone comprises high-end processing layer referred to as a business layer, the method which further comprises the step of configuring the business layer.

1 13. The method of Claim 11, further comprising the steps of:

2 (i) installing at least one additional peer-to-peer service processor in the IT  
3 Infrastructure; and

4 (ii) configuring the service processor with a pre-packaged set of event structures, data  
5 structures, and rules, such that the service processor can deliver business impact  
6 statements.

1 14. The method of Claim 1, further comprising the step of defining at least one of the  
2 business services.

3 15. The method of Claim 13, further comprising the steps of:

4 (i) decomposing at least one business service into at least one of the business  
5 transactions, wherein each business transaction branches to at least one site-  
6 specific instance defined as a Site Business Transactions (SBT);

7 (ii) further decomposing each SBT into at least one Site Application Transactions  
8 (SAT);

9 (iii) organizing each SAT into an orderly sequence;

10 (iv) defining one of the IT Paths for each SAT;

11 (v) associating to each SAT at least one parameters to remotely submit a sample site  
12 application transaction at an associated source location;

13 (vi) associating to each SAT at least one parameter to request the backbone to capture  
14 related execution information for each sample site application transaction; and

15 (vii) defining at least one business user group as a resource dependent on at least one  
16 site business transactions of at least one business services.

1 16. The method of Claim 1, further comprising the step of defining an IT Domain as a logical  
2 realm.

1 17. The method of Claim 15, further comprising the steps of:

- 2 (i) linking an IT Domain to at least a primary domain processor configured to deliver  
3 abstraction services;  
4 (ii) linking each domain processor of the IT Domain to one of the ODS processors.

1 18. The method of Claim 17, further comprising the steps of:

- (i) associating at least one IT Aggregate to one IT Domain such that at least one  
domain processor will own the IT Aggregate;  
(ii) decomposing the IT Aggregate into at least one aggregation pattern used by the  
domain processor to query the ODS processor and identify matching IT Components.

1 19. The method of Claim 1, further comprising the step of:

2 branching each IT Path onto at least one IT Aggregate creating an auditable snapshot of  
3 the IT Path.

1 20. The method of Claim 1, further comprising the step of defining an IT Indicator as an  
2 accretion point for a range of IT events carrying information related to a same operational  
3 parameter in a given management discipline.

1 21. The method of Claim 20, further comprising the steps of:

- 2 (i) associating the IT Indicator to an independent event source or a controlled event  
3 source;

- 4 (ii) setting appropriate event capture arguments for the IT Indicator when associated  
5 to the independent event source;
- 6 (iii) setting appropriate instrumentation arguments for the IT Indicator when  
7 associated to the controlled event source;
- 8 (iv) auto-associating at least one service processor to the IT Indicator; and
- 9 (v) registering the IT Indicator onto the service processor.

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1 22. A system of enterprise systems management of events comprising:  
2 at least one event processor;  
3 at least one an event browser;  
4 at least one knowledge base having management rules;  
5 at least one at least one adapter capable of detecting events and format the data into an  
6 event description;  
7 wherein each event processor is capable of collecting, processing, responding to, and  
8 storing the events according to the management rules.

9 23. The system of Claim 22 wherein the event browser is a JAVA™-based Graphical User  
10 Interface.

1 24. The system of Claim 22 further comprising at least one at least one knowledge base  
2 editor.

1 25. The system of Claim 22 further comprising at least one storage subsystem.

1 26. The system of Claim 25 wherein each storage subsystem comprises a state file and a  
2 journal file.

1 27. The system of Claim 26 wherein the state file comprises a description of events and data  
2 objects.

1 28. The system of Claim 22 where each event processor is installed across a distributed  
2 environment.

1 29. The system of Claim 22 further comprising a virtual machine.

1 30. The system of Claim 22 wherein each event processor further comprises data  
2 associations.

1 31. The system of Claim 22 wherein each management rule is dynamically associated with  
2 data representing specific knowledge.

1 32. The system of Claim 22 wherein each processor comprises event structures, data  
2 structures, control structures, actions, and rules such that the service processor is capable of  
3 capturing external events, using embedded instrumentation functions, applying mapping  
4 methods, and enforcing distributed management policies where each event processor is installed  
5 across a distributed environment.